

Claims

1. A washing method comprising:

disposing, in an outer casing filled with a cleaning liquid and tightly sealed, a cylindrical basket-like washing tub of which a central shaft is disposed in a horizontal direction;

placing a laundry article in the cylindrical basket-like washing tub; and

rotating the cylindrical basket-like washing tub about the central shaft in such a manner that the laundry article maintains a near-zero gravity state and is spread out so as to be increased in contact area with the cleaning liquid in the cylindrical basket-like washing tub.

2. The washing method according to claim 1, wherein

a wavy patterned surface is formed on an inner periphery of the cylindrical basket-like washing tub along a circumferential direction for causing the cleaning liquid to flow toward a center of the cylindrical basket-like washing tub when the cylindrical basket-like washing tub is rotated;

the cylindrical basket-like washing tub has an inner diameter of less than 500 mm and is rotated for 60 to 120 times per minute; and

the wavy patterned surface is in the form of a sine curve having protrusions protruding in a radial direction of the cylindrical basket-like washing tub.

3. The washing method according to claim 1, wherein

a wavy patterned surface is formed on an inner periphery of the cylindrical basket-like washing tub along a circumferential direction for causing the cleaning

liquid to flow toward a center of the cylindrical basket-like washing tub when the cylindrical basket-like washing tub is rotated;

the cylindrical basket-like washing tub has an inner  
5 diameter of more than or equal to 500 mm and is rotated for 5 to 60 times per minute; and

the wavy patterned surface is in the form of a sine curve having protrusions protruding in a radial direction of the cylindrical basket-like washing tub.

10 4. The washing method according to claim 3, wherein the cylindrical basket-like washing tub is rotated normally and reversely with regularity when the cylindrical basket-like washing tub is rotated for 10 or more times per minute.

15 5. The washing method according to claim 2, wherein the wavy patterned surface is formed of protruding parts disposed on the inner periphery of the cylindrical basket-like washing tub parallelly to one another at a constant interval along the circumferential direction,  
20 each of the protruding parts extending in a longitudinal direction of the cylindrical basket-like washing tub; and a height of each of the protruding parts is set to from 3.0% to 6.0% of the inner diameter D of the cylindrical basket-like washing tub.

25 6. The washing method according to claim 3, wherein the wavy patterned surface is formed of protruding parts disposed on the inner periphery of the cylindrical basket-like washing tub parallelly to one another at a constant interval along the circumferential direction,  
30 each of the protruding parts extending in a longitudinal

direction of the cylindrical basket-like washing tub; and  
a height of each of the protruding parts is set to  
from 3.0% to 6.0% of the inner diameter D of the  
cylindrical basket-like washing tub.

5           7. The washing method according to claim 4, wherein

the wavy patterned surface is formed of protruding  
parts disposed on the inner periphery of the cylindrical  
basket-like washing tub parallelly to one another at a  
constant interval along the circumferential direction,

10 each of the protruding parts extending in a longitudinal  
direction of the cylindrical basket-like washing tub; and

a height of each of the protruding parts is set to  
from 3.0% to 6.0% of the inner diameter D of the  
cylindrical basket-like washing tub.

15           8. The washing method according to claim 1, wherein  
the cylindrical basket-like washing tub is rotated  
intermittently.

          9. The washing method according to claim 1, wherein  
the cleaning liquid in the cylindrical basket-like washing  
20 tub is increased or decreased in pressure by a pressure  
change device.